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ABSTRACT

Exposure to novel stimuli increases one's liking for such stimuli. Response competition is one theory attempting to account for this effect: as a stimulus becomes more familiar, competing responses drop out in favor of one dominant response and the stimulus becomes better liked. Imagery ability refers to the regeneration of responses during cognitive activity that would occur in an actual action or perceptual context. This study independently varied exposure frequency and response competition, and looked at the mediating effect of imagery ability on each. Undergraduate students (N=68) pronounced aloud three-syllable Turkish words, either accenting same syllable each time (no response competition), or accenting different syllables during different pronunciations (response competition). After several pronunciations, subjects rated each word. Subjects completed the Questionnaire Upon Mental Imagery; a median split divided subjects into good and poor imagers. The typical mere exposure effect was not found unless response competition and imagery ability were taken into account. With no response competition, good imagers showed the mere exposure effect; poor imagers did not. Response competition eliminated the effect in good imagers. Poor imagers finally showed the exposure-liking effect with a large number of exposures. Good imagers were more sensitive than poor imagers to the mere exposure effect and to the influence of response competition on stimulus evaluation. (NB)

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The Mere Exposure Effect:

Relationship to Response Competition and Imagery Ability

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The positive relationship between familiarity and liking is a robust effect in psychology (Zajonc, 1968). Mere exposure to novel stimuli increases one's liking for it. One of the major theories attempting to account for this effect is that of response competition: As a stimulus becomes more familiar, competing responses (which are aversive) drop out in favor of one dominant response, and the stimulus becomes better liked (Matlin, 1970). Imagery ability involves the regeneration of responses during cognitive activity that would occur in the actual action or perceptual context (Lang, 1979). This study independently varies exposure frequency and response competition, and looks at the mediating effect of imagery ability on each.

Method

Sixty-eight undergraduates (34 males) participated in an experiment in which they pronounced aloud three-syllable Turkish words displayed on a computer screen. A word was pronounced either with the accent on the same syllable every pronunciation (no response competition), or with the accent on each of the three different syllables during different pronunciations (response competition). Words pronounced the same way each time were repeated one, three, or nine times. Words pronounced three different ways were repeated one, three, or nine times for each different pronunciation,

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for a total of three, nine, or 27 repetitions (see Table 1 for a schematic of the design). After pronouncing all the words subjects rated each word for: 1) impression of the word meaning (1-good to 7-bad); 2) number of times the word was actually pronounced; 3) how many different ways the word was pronounced; and 4) which syllable would be stressed if the word was pronounced "correctly." Subjects completed the Questionnaire Upon Mental Imagery (Sheehan, 1967), and a median split divided subjects into good and poor imagers.

TABLE ONE: EXPERIMENTAL DESIGN
(EXAMPLE FOR ONE SUBJECT)

	TOTAL REPETITIONS PER WORD			
CONDITION	1	3	9	27
NO RESPONSE COMPETITION	BIWOJNI NANSOMA KADIRGA	ENANWAL ZABULON LOKANTA	JANDARA CIVADRA NIJARON	
RESPONSE COMPETITION		ENSHIMI INDULAM	BOZULMA FEVKANI	EKSIMEK LEVAHIK

Words in the bottom row were pronounced the same number of times with the accent on each syllable. For example, ENSHIMI was pronounced three times, with an accent on a different syllable each time; ENANWAL was pronounced three times, always with the accent on the first syllable. Words rotated through conditions so that each word appeared in each cell for the same number of subjects.

Results

As can be seen in Figure 1, the typical mere exposure effect was not found unless response competition and imagery ability were taken into account. With no response competition, good imagers showed the mere exposure effect, whereas poor imagers did not. Response competition eliminated the effect in good imagers; however, poor imagers finally showed the exposure-liking effect with a large number (27) of exposures. Thus, good imagers were more sensitive to number of exposures and to

response competition. Poor imagers needed more repetition to show the exposure-liking effect, and were not affected by response competition.

Figure 2 shows that good imagers were slightly more accurate than poor imagers in judging the number of times the word was pronounced when there was no response competition. However, response competition interfered with this accuracy for good imagers, and made them less accurate than poor imagers. Figure 3 indicates that response competition increased subjects' estimate of the number of different ways a word was pronounced, reflecting subjects' accuracy in this estimate. However, increasing the number of repetitions also increased the estimate of the ways a word was pronounced, even when the word was repeated only one way. This effect was stronger for good imagers than it was for poor imagers.

Figure 4 shows the percentage of words in which the syllable accented during pronunciation was chosen as the syllable that should be accented when the word is pronounced "correctly." (Note that this graph includes no-response-competition words only, and the percentage of times one of the two syllables not accented was chosen is divided in half to equate the bars for chance responding.) When the word was pronounced just once, there was no effect on later judgment of correct pronunciation. Good imagers showed an influence of pronouncing the word with a particular accent by three repetitions; both good and poor imagers were influenced in their judgments when they pronounced the word the same way nine times.

Discussion

Vocal responses appear to be coded in memory with words, and when the words are recalled these responses are activated and influence various judgments. This appears particularly true in people with good imagery ability. Good imagers are more sensitive than poor imagers to the mere exposure effect and to the influence of response competition on

stimulus evaluation. They also are more influenced by their prior vocal responses when asked to judge the "correct" pronunciation of a nonsense word. On the other hand, response competition and multiple exposures bias good imagers toward less accuracy when estimating the objective facts of these manipulations (number of exposures and different ways pronounced), perhaps because they store and elaborate upon the vocal responses.

References

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Figure 1

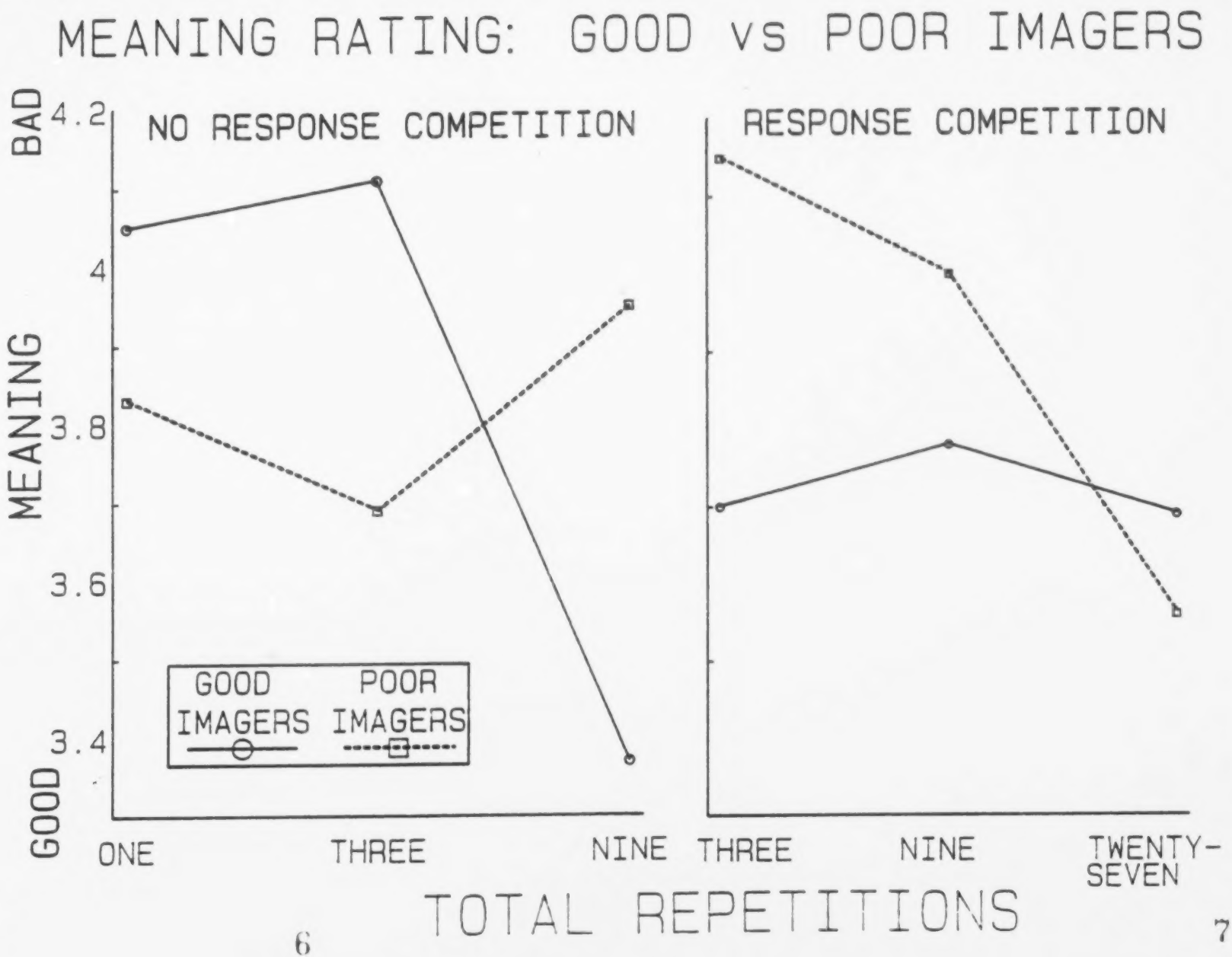

MEANING RATING: GOOD vs POOR IMAGERS
NO RESPONSE COMPETITION
RESPONSE COMPETITION
BAD
GOOD
MEANING
4.2
4
3.8
3.6
3.4
GOOD IMAGERS
POOR IMAGERS
ONE
THREE
NINE
THREE
NINE
TWENTY-SEVEN
TOTAL REPETITIONS

Figure 2

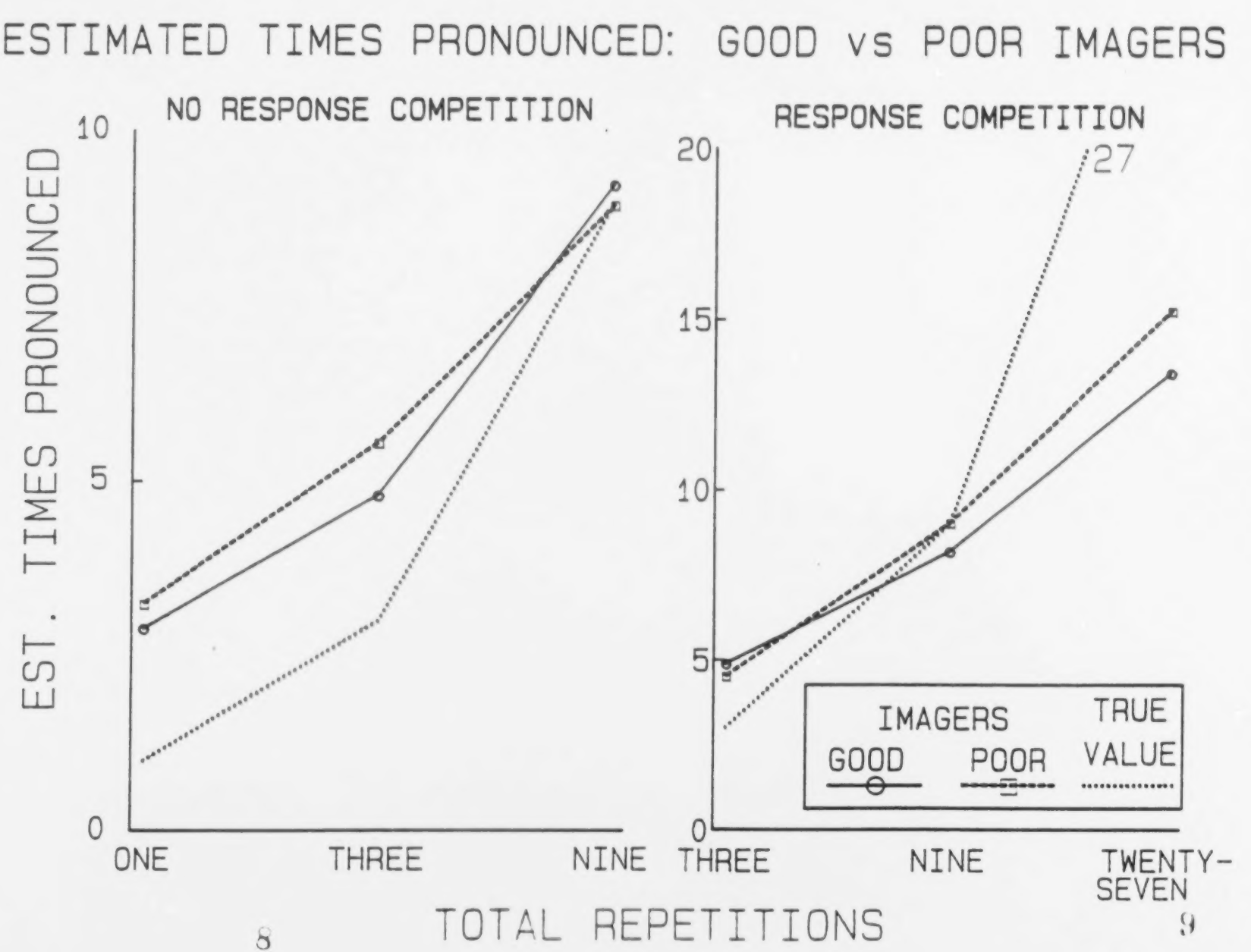

ESTIMATED TIMES PRONOUNCED: GOOD vs POOR IMAGERS
NO RESPONSE COMPETITION
RESPONSE COMPETITION
EST. TIMES PRONOUNCED
10
5
0
20
15
10
5
0
27
ONE
THREE
NINE
THREE
NINE
TWENTY-SEVEN
IMAGERS
GOOD
POOR
TRUE VALUE
TOTAL REPETITIONS

Figure 3

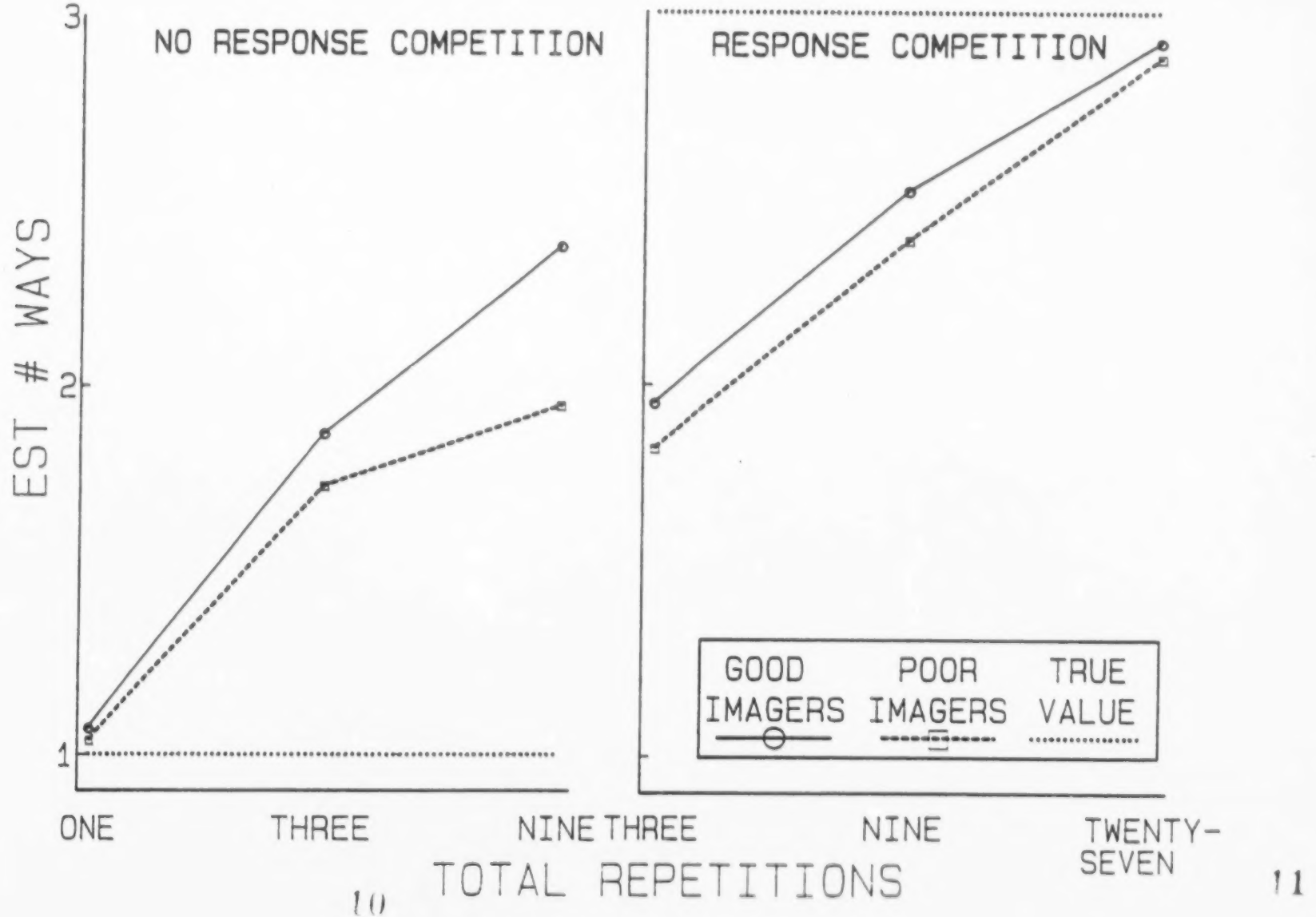
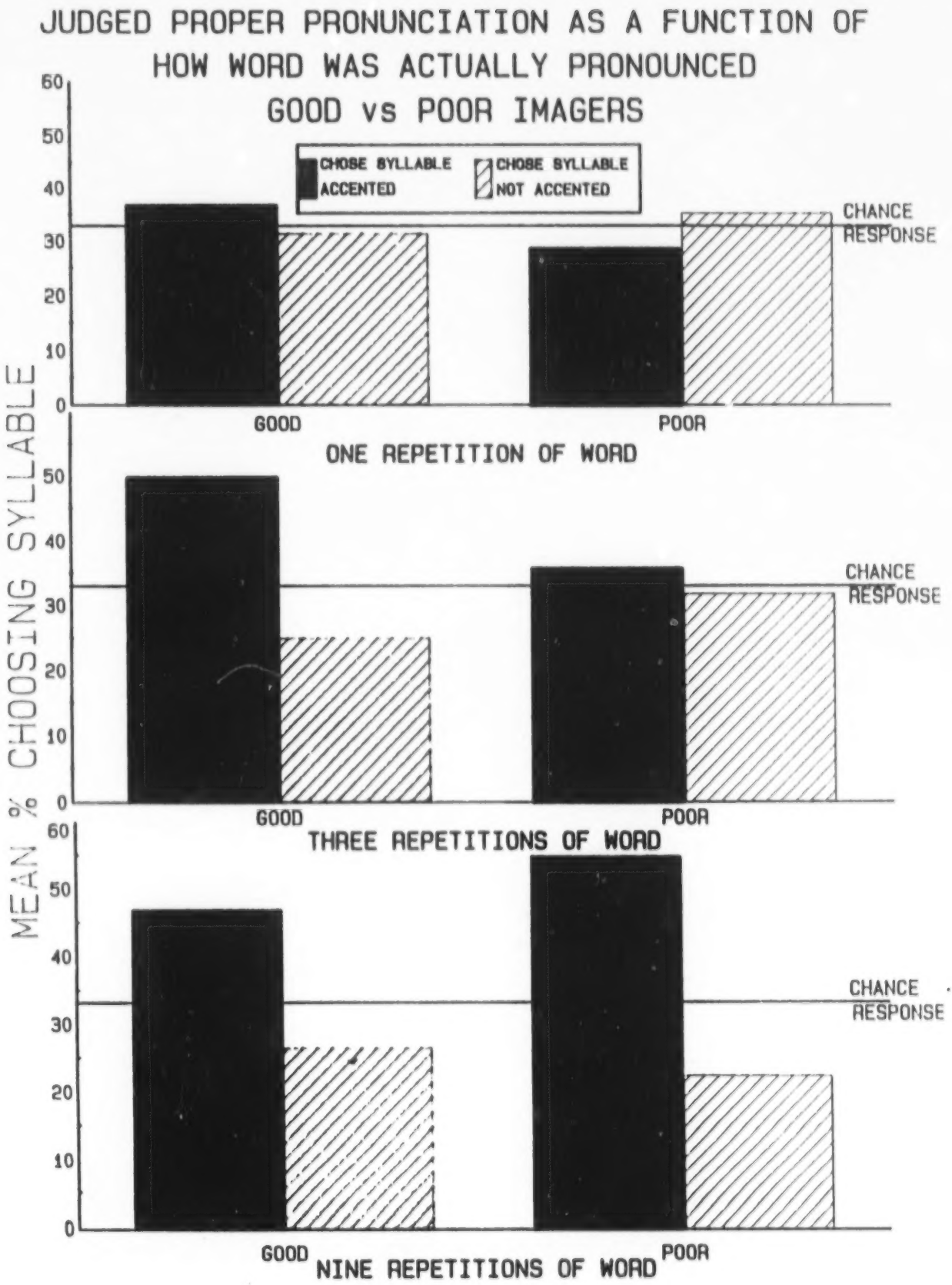

EST. # OF WAYS PRONOUNCED: GOOD vs POOR IMAGERS
NO RESPONSE COMPETITION
RESPONSE COMPETITION
EST # WAYS
3
2
1
GOOD IMAGERS
POOR IMAGERS
TRUE VALUE
ONE
THREE
NINE
THREE
NINE
TWENTY-SEVEN
TOTAL REPETITIONS

Figure 4


JUDGED PROPER PRONUNCIATION AS A FUNCTION OF
HOW WORD WAS ACTUALLY PRONOUNCED
GOOD vs POOR IMAGERS
CHOSE SYLLABLE ACCENTED
CHOSE SYLLABLE NOT ACCENTED
CHANCE RESPONSE
MEAN % CHOOSING SYLLABLE
60
50
40
30
20
10
0
GOOD
POOR
ONE REPETITION OF WORD
THREE REPETITIONS OF WORD
NINE REPETITIONS OF WORD